



State of Utah

Department of  
Environmental Quality

Dianne R. Nielson, Ph.D.  
*Executive Director*

DIVISION OF AIR QUALITY  
Richard W. Sprott  
*Director*

OLENE S. WALKER  
*Governor*

GAYLE F. McKEACHNIE  
*Lieutenant Governor*

Site ID: 10819

## Title V Operating Permit

**PERMIT NUMBER: 4900072001**

**DATE OF PERMIT: May 20, 2004**

Date of Last Revision: May 20, 2004

This Operating Permit is issued to, and applies to the following:

**Name of Permittee:**

Springville City Corporation  
50 S Main Street  
Springville, UT 84663

**Permitted Location:**

Whitehead Power Plant  
450 West 700 North  
Springville, UT 84663

UTM coordinates: 4,447,250 meters Northing, 447,400 meters Easting  
SIC code: 4911

## ABSTRACT

The Springville City Power Plant is located in Springville, Utah. The plant has seven dual fuel engine generators for the production of electricity. Four generators are Enterprise engines, one of which has a catalytic oxidizer unit and one other will have a catalytic oxidizer unit installed soon. The other three generators are General Motors ElectroMotive engines, one of which has a catalytic oxidizer unit. The Springville City Power Plant is a major source of NO<sub>x</sub> and CO.

### UTAH AIR QUALITY BOARD

By:

Richard W. Sprott, Executive Secretary

Prepared By:

James Chapman

**Operating Permit History**

5/20/2004 - Permit issued	Action initiated by an initial operating permit application	
---------------------------	---	--

## Table of Contents

<b>SECTION I: GENERAL PROVISIONS.....</b>	<b>1</b>
I.A.    FEDERAL ENFORCEMENT.....	1
I.B.    PERMITTED ACTIVITY(IES).....	1
I.C.    DUTY TO COMPLY.....	1
I.D.    PERMIT EXPIRATION AND RENEWAL.....	2
I.E.    APPLICATION SHIELD.....	2
I.F.    SEVERABILITY.....	2
I.G.    PERMIT FEE.....	2
I.H.    NO PROPERTY RIGHTS.....	2
I.I.    REVISION EXCEPTION.....	2
I.J.    INSPECTION AND ENTRY.....	2
I.K.    CERTIFICATION.....	3
I.L.    COMPLIANCE CERTIFICATION.....	3
I.M.    PERMIT SHIELD.....	4
I.N.    EMERGENCY PROVISION.....	4
I.O.    OPERATIONAL FLEXIBILITY.....	5
I.P.    OFF-PERMIT CHANGES.....	5
I.Q.    ADMINISTRATIVE PERMIT AMENDMENTS.....	5
I.R.    PERMIT MODIFICATIONS.....	5
I.S.    RECORDS AND REPORTING.....	5
I.T.    REOPENING FOR CAUSE.....	7
I.U.    INVENTORY REQUIREMENTS.....	7
<b>SECTION II: SPECIAL PROVISIONS.....</b>	<b>8</b>
II.A.    EMISSION UNIT(S) PERMITTED TO DISCHARGE AIR CONTAMINANTS.....	8
II.B.    REQUIREMENTS AND LIMITATIONS.....	8
<b>II.B.1    Conditions on permitted source (Source-wide).....</b>	<b>8</b>
<b>II.B.2    Conditions on Engines Group ( Engines).....</b>	<b>10</b>
<b>II.B.3    Conditions on Boilers ( Boiler Group).....</b>	<b>15</b>
II.C.    EMISSIONS TRADING.....	15
II.D.    ALTERNATIVE OPERATING SCENARIOS.....	15
<b>SECTION III: PERMIT SHIELD .....</b>	<b>15</b>
<b>SECTION IV: ACID RAIN PROVISIONS.....</b>	<b>15</b>

**Issued under authority of Utah Code Ann. Section 19-2-104 and 19-2-109.1, and in accordance with Utah Administrative Code R307-415 Operating Permit Requirements.**

All definitions, terms and abbreviations used in this permit conform to those used in Utah Administrative Code R307-101 and R307-415 (Rules), and 40 Code of Federal Regulations (CFR), except as otherwise defined in this permit. Unless noted otherwise, references cited in the permit conditions refer to the Rules.

Where a permit condition in Section I, General Provisions, partially recites or summarizes an applicable rule, the full text of the applicable portion of the rule shall govern interpretations of the requirements of the rule. In the case of a conflict between the Rules and the permit terms and conditions of Section II, Special Provisions, the permit terms and conditions of Section II shall govern except as noted in Provision I.M, Permit Shield.

**Section I: General Provisions**

**I.A. Federal Enforcement.**

All terms and conditions in this permit, including those provisions designed to limit the potential to emit, are enforceable by the EPA and citizens under the Clean Air Act of 1990 (CAA) except those terms and conditions that are specifically designated as "State Requirements". (R307-415-6b)

**I.B. Permitted Activity(ies).**

Except as provided in R307-415-7b(1), the permittee may not operate except in compliance with this permit. (See also Provision I.E, Application Shield)

**I.C. Duty to Comply.**

I.C.1 The permittee must comply with all conditions of the operating permit. Any permit noncompliance constitutes a violation of the Air Conservation Act and is grounds for any of the following: enforcement action; permit termination; revocation and reissuance; modification; or denial of a permit renewal application. (R307-415-6a(6)(a))

I.C.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (R307-415-6a(6)(b))

I.C.3 The permittee shall furnish to the Executive Secretary, within a reasonable time, any information that the Executive Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Executive Secretary copies of records required to be kept by this permit or, for information claimed to be confidential, the permittee may furnish such records directly to the EPA along with a claim of confidentiality. (R307-415-6a(6)(e))

I.C.4 This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance shall not stay any permit condition, except as provided under R307-415-7f(1) for minor permit modifications. (R307-415-6a(6)(c))

**I.D. Permit Expiration and Renewal.**

**I.D.1 This permit is issued for a fixed term of five years and expires on May 20, 2009. (R307-415-6a(2))**

**I.D.2** Application for renewal of this permit is due by November 20, 2008. An application may be submitted early for any reason. (R307-415-5a(1)(c))

**I.D.3** An application for renewal submitted after the due date listed in I.D.2 above shall be accepted for processing, but shall not be considered a timely application and shall not relieve the permittee of any enforcement actions resulting from submitting a late application. (R307-415-5a(5))

**I.D.4** Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted consistent with R307-415-7b (see also Provision I.E, Application Shield) and R307-415-5a(1)(c) (see also Provision I.D.2). (R307-415-7c(2))

**I.E. Application Shield.**

If the permittee submits a timely and complete application for renewal, the permittee's failure to have an operating permit will not be a violation of R307-415, until the Executive Secretary takes final action on the permit renewal application. In such case, the terms and conditions of this permit shall remain in force until permit renewal or denial. This protection shall cease to apply if, subsequent to the completeness determination required pursuant to R307-415-7a(3), and as required by R307-415-5a(2), the applicant fails to submit by the deadline specified in writing by the Executive Secretary any additional information identified as being needed to process the application. (R307-415-7b(2))

**I.F. Severability.**

In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force. (R307-415-6a(5))

**I.G. Permit Fee.**

**I.G.1** The permittee shall pay an annual emission fee to the Executive Secretary consistent with R307-415-9. (R307-415-6a(7))

**I.G.2** The emission fee shall be due on October 1 of each calendar year or 45 days after the source receives notice of the amount of the fee, whichever is later. (R307-415-9(4)(a))

**I.H. No Property Rights.**

This permit does not convey any property rights of any sort, or any exclusive privilege. (R307-415-6a(6)(d))

**I.I. Revision Exception.**

No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (R307-415-6a(8))

**I.J. Inspection and Entry.**

I.J.1 Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Executive Secretary or an authorized representative to perform any of the following:

I.J.1.a Enter upon the permittee's premises where the source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit. (R307-415-6c(2)(a))

I.J.1.b Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit. (R307-415-6c(2)(b))

I.J.1.c Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practice, or operation regulated or required under this permit. (R307-415-6c(2)(c))

I.J.1.d Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements. (R307-415-6c(2)(d))

I.J.2 Any claims of confidentiality made on the information obtained during an inspection shall be made pursuant to Utah Code Ann. Section 19-1-306. (R307-415-6c(2)(e))

**I.K. Certification.**

Any application form, report, or compliance certification submitted pursuant to this permit shall contain certification as to its truth, accuracy, and completeness, by a responsible official as defined in R307-415-3. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (R307-415-5d)

**I.L. Compliance Certification.**

I.L.1 Permittee shall submit to the Executive Secretary an annual compliance certification, certifying compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall be submitted no later than **May 1, 2005** and that date each year following until this permit expires. The certification shall include all the following (permittee may cross-reference this permit or previous reports): (R307-415-6c(5))

I.L.1.a The identification of each term or condition of this permit that is the basis of the certification;

I.L.1.b The identification of the methods or other means used by the permittee for determining the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means shall include, at a minimum, the monitoring and related recordkeeping and reporting requirements in this permit. If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information;

I.L.1.c The status of compliance with the terms and conditions of the permit for the period covered by the certification, based on the method or means designated in Provision

I.L.1.b. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred; and

I.L.1.d. Such other facts as the Executive Secretary may require to determine the compliance status.

I.L.2. The permittee shall also submit all compliance certifications to the EPA, Region VIII, at the following address or to such other address as may be required by the Executive Secretary: (R307-415-6c(5)(d))

Office of Enforcement, Compliance and Environmental Justice  
(mail code 8ENF)  
EPA, Region VIII  
999 18th Street, Suite 300  
Denver, CO 80202-2466

**I.M. Permit Shield.**

I.M.1. Compliance with the provisions of this permit shall be deemed compliance with any applicable requirements as of the date of this permit, provided that:

I.M.1.a. Such applicable requirements are included and are specifically identified in this permit, or (R307-415-6f(1)(a))

I.M.1.b. Those requirements not applicable to the source are specifically identified and listed in this permit. (R307-415-6f(1)(b))

I.M.2. Nothing in this permit shall alter or affect any of the following:

I.M.2.a. The emergency provisions of Utah Code Ann. Section 19-1-202 and Section 19-2-112, and the provisions of the CAA Section 303. (R307-415-6f(3)(a))

I.M.2.b. The liability of the owner or operator of the source for any violation of applicable requirements under Utah Code Ann. Section 19-2-107(2)(g) and Section 19-2-110 prior to or at the time of issuance of this permit. (R307-415-6f(3)(b))

I.M.2.c. The applicable requirements of the Acid Rain Program, consistent with the CAA Section 408(a). (R307-415-6f(3)(c))

I.M.2.d. The ability of the Executive Secretary to obtain information from the source under Utah Code Ann. Section 19-2-120, and the ability of the EPA to obtain information from the source under the CAA Section 114. (R307-415-6f(3)(d))

**I.N. Emergency Provision.**

I.N.1. An “emergency” is any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-

based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. (R307-415-6g(1))

- I.N.2 An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the affirmative defense is demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
- I.N.2.a An emergency occurred and the permittee can identify the causes of the emergency. (R307-415-6g(3)(a))
- I.N.2.b The permitted facility was at the time being properly operated. (R307-415-6g(3)(b))
- I.N.2.c During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in this permit. (R307-415-6g(3)(c))
- I.N.2.d The permittee submitted notice of the emergency to the Executive Secretary within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirement of Provision I.S.2.c below. (R307-415-6g(3)(d))
- I.N.3 In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. (R307-415-6g(4))
- I.N.4 This emergency provision is in addition to any emergency or upset provision contained in any other section of this permit. (R307-415-6g(5))

**I.O. Operational Flexibility.**

Operational flexibility is governed by R307-415-7d(1).

**I.P. Off-permit Changes.**

Off-permit changes are governed by R307-415-7d(2).

**I.Q. Administrative Permit Amendments.**

Administrative permit amendments are governed by R307-415-7e.

**I.R. Permit Modifications.**

Permit modifications are governed by R307-415-7f.

**I.S. Records and Reporting.**

**I.S.1 Records.**

- I.S.1.a The records of all required monitoring data and support information shall be retained by the permittee for a period of at least five years from the date of the monitoring sample,



measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-charts or appropriate recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. (R307-415-6a(3)(b)(ii))

- I.S.1.b For all monitoring requirements described in Section II, Special Provisions, the source shall record the following information, where applicable: (R307-415-6a(3)(b)(i))
- I.S.1.b.1 The date, place as defined in this permit, and time of sampling or measurement.
- I.S.1.b.2 The date analyses were performed.
- I.S.1.b.3 The company or entity that performed the analyses.
- I.S.1.b.4 The analytical techniques or methods used.
- I.S.1.b.5 The results of such analyses.
- I.S.1.b.6 The operating conditions as existing at the time of sampling or measurement.
- I.S.1.c Additional record keeping requirements, if any, are described in Section II, Special Provisions.
- I.S.2 Reports.
- I.S.2.a Monitoring reports shall be submitted to the Executive Secretary every six months, or more frequently if specified in Section II. All instances of deviation from permit requirements shall be clearly identified in the reports. (R307-415-6a(3)(c)(i))
- I.S.2.b All reports submitted pursuant to Provision I.S.2.a shall be certified by a responsible official in accordance with Provision I.K of this permit. (R307-415-6a(3)(c)(i))
- I.S.2.c The Executive Secretary shall be notified promptly of any deviations from permit requirements including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventative measures taken. **Prompt, as used in this condition, shall be defined as written notification within 14 days.** Deviations from permit requirements due to unavoidable breakdowns shall be reported in accordance with the provisions of R307-107. (R307-415-6a(3)(c)(ii))
- I.S.3 Notification Addresses.
- I.S.3.a All reports, notifications, or other submissions required by this permit to be submitted to the Executive Secretary are to be sent to the following address or to such other address as may be required by the Executive Secretary:

Utah Division of Air Quality  
P.O. Box 144820  
Salt Lake City, UT 84114-4820  
Phone: 801-536-4000

- I.S.3.b All reports, notifications or other submissions required by this permit to be submitted to the EPA should be sent to one of the following addresses or to such other address as may be required by the Executive Secretary:

For annual compliance certifications

Environmental Protection Agency, Region VIII  
Office of Enforcement, Compliance and  
Environmental Justice (mail code 8ENF)  
999 18th Street, Suite 300  
Denver, CO 80202-2466

For reports, notifications, or other correspondence  
related to permit modifications, applications, etc.

Environmental Protection Agency, Region VIII  
Office of Partnerships & Regulatory Assistance  
Air & Radiation Program (mail code 8P-AR)  
999 18th Street, Suite 300  
Denver, CO 80202-2466  
Phone: 303-312-6440

**I.T. Reopening for Cause.**

- I.T.1 A permit shall be reopened and revised under any of the following circumstances:

I.T.1.a New applicable requirements become applicable to the permittee and there is a remaining permit term of three or more years. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the terms and conditions of this permit have been extended pursuant to R307-415-7c(3), application shield. (R307-415-7g(1)(a))

I.T.1.b The Executive Secretary or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. (R307-415-7g(1)(c))

I.T.1.c EPA or the Executive Secretary determines that this permit must be revised or revoked to assure compliance with applicable requirements. (R307-415-7g(1)(d))

I.T.1.d Additional applicable requirements are to become effective before the renewal date of this permit and are in conflict with existing permit conditions. (R307-415-7g(1)(e))

I.T.2 Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. (R307-415-7g(2))

**I.U. Inventory Requirements.**

Emission inventories shall be submitted in accordance with the procedures of R307-150, Emission Inventories. (R307-150)

## **Section II: SPECIAL PROVISIONS**

### **II.A. Emission Unit(s) Permitted to Discharge Air Contaminants.**

(R307-415-4(3)(a) and R307-415-4(4))

#### **II.A.1 Engines Group** (designated as Engines)

Unit Description: Group of all internal combustion engines. Includes: K-1 thru K-7.

#### **II.A.2 Enterprise Engines Group** (designated as Enterprise Engines)

Unit Description: Group consisting of four internal combustion dual fuel engine generators (K-1 thru K-4) equipped with CleanBurn Technology for NO<sub>x</sub> control. K-1, K-2, and K-3 are rated at 7.0 MW each and K-4 is rated at 5.1 MW.

#### **II.A.3 General Motors ElectroMotive Engines** (designated as GM-EMD)

Unit Description: Group consisting of three internal combustion, dual-fuel General Motors ElectroMotive Diesel engine generators (Units K-5 thru K-7). Each engine/generator is rated at 2.7 MW.

#### **II.A.4 Catalytic Oxidizers** (designated as Catalytic Oxidizer)

Unit Description: Catalytic oxidizers are installed on one of the four Enterprise engine generators and on one of the three General Motors engine generators for the control of CO emissions.

#### **II.A.5 Boilers** (designated as Boiler Group)

Unit Description: Group consists of the natural gas boiler and the digester boiler.

#### **II.A.6 Natural Gas Boiler** (designated as Natural Gas Boiler)

Unit Description: Natural gas only. Boiler rated at 6.0 MMBTU/hr capacity.

#### **II.A.7 Digester Boiler** (designated as Digester Boiler)

Unit Description: Methane fuel digester boiler rated at 2.5 MMBTU/hr.

### **II.B. Requirements and limitations.**

The following emission limitations, standards, and operational limitations apply to the permitted facility as indicated: (R307-415-6a(1))

#### **II.B.1 Conditions on permitted source (Source-wide)**

##### **II.B.1.a Condition:**

Visible emissions shall be no greater than 10 percent opacity excluding 15 minutes at start-up of any emission unit. [Authority granted under R307- 401- 6(1) (BACT); condition originated in DAQE-AN0819007-03]

##### **II.B.1.a.1 Monitoring:**

A visual observation of each affected emission unit shall be performed on a monthly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. The individual is not required to be a certified visible emissions observer (VEO). If any visible emissions are observed, an opacity determination of that emission unit shall be performed by a certified VEO in accordance with 40 CFR 60, Appendix A, Method 9 within 24 hours of the initial observation.

##### **II.B.1.a.2 Recordkeeping:**

Results of observations and all data required by 40 CFR, Part 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.a.3

**Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.b

**Condition:**

Sulfur content of any fuel oil burned shall be no greater than 0.05 percent by weight. [Authority granted under R307- 401- 6(1) (BACT); condition originated in DAQE-AN0819007-03]

II.B.1.b.1

**Monitoring:**

Compliance with this limitation shall be determined either by testing each fuel delivery for the sulfur content or by inspection of the fuel sulfur-content specifications provided by the vendor in purchase records. Sulfur content in either instance shall be determined in accordance with ASTM-D4294, or equivalent. Equivalency shall be requested in writing to the Executive Secretary.

II.B.1.b.2

**Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.b.3

**Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.c

**Condition:**

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any permitted plant equipment, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [Authority granted under R307-401-5; condition originated in DAQE-AN0819007-03]

II.B.1.c.1

**Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.1.c.2

**Recordkeeping:**

Permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.c.3

**Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.d

**Condition:**

Permittee shall install Catalytic Oxidizer (CO) unit on one of the two Enterprise engines without CO unit previously installed. CO unit shall be installed and operating prior to October 31, 2004.

After unit is installed and operating, this condition and all associated monitoring, recordkeeping, and reporting shall be void and will be struck from this Title V permit at the next permit action. [Authority granted under R307- 401- 6(1) (BACT); condition originated in R307-401-6(1) BACT]

II.B.1.d.1

**Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.1.d.2

**Recordkeeping:**

Records shall be kept of the installation of the CO unit on the Enterprise engine.

II.B.1.d.3

**Reporting:**

A notification shall be submitted to DAQ when the CO unit is installed and operating on the Enterprise engine. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.2

**Conditions on Engines Group ( Engines)**

II.B.2.a

**Condition:**

The permittee shall maintain, calibrate, and operate a continuous emissions monitoring system on all generator exhaust stacks to monitor emissions of NO<sub>x</sub> and CO. [Authority granted under R307-401-6(1) [BACT]; condition originated in DAQE-AN0819007-03]

II.B.2.a.1

**Monitoring:**

The permittee shall maintain, calibrate, and operate a continuous emissions monitoring system on all generator exhaust stacks. The owner/operator shall record the output of the system, for measuring the NO<sub>x</sub> emissions and the CO emissions. The monitoring system shall comply with all applicable sections of R307-170.

Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, the owner/operator of an affected source shall continuously operate all required continuous monitoring systems and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13 and Section R307-170.

II.B.2.a.2

**Recordkeeping:**

The permittee shall keep the records specified in R307-170-8 and any additional records required by provision I.S.1 of this permit. These records shall be maintained in accordance with Provision I.S.1.

II.B.2.a.3

**Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2.b

**Condition:**

Emissions to the atmosphere from the indicated emission point shall not exceed the following rates and concentrations:

- A. Emissions from the operation of each Enterprise engine at the plant:

		lb/hr	grams/kW-hr
1)	NO <sub>x</sub>	27.00	2.50
B.	Emissions from the operation of each General Motor EMD engine at the plant:		

		lb/hr	grams/kW-hr
1)	NO <sub>x</sub>	24.00	4.90.
[Authority granted under R307-401-6(1) (BACT); condition originated in DAQE-AN0819007-03]			

#### II.B.2.b.1

##### **Monitoring:**

The permittee shall calibrate, operate, and maintain a continuous emissions monitoring system (CEM) on generator exhaust stacks, in accordance with R 307-170. While the affected emission units are operating, hourly NO<sub>x</sub> emission rates expressed in lbs per hour and concentrations expressed in grams per kW-hr shall be determined in accordance with R307-170 using the appropriate conversion factors. The applicable performance specification in R307-170 shall be 40 CFR 60, Appendix B, Performance Specification 6 - "Specifications and Test Procedures for Continuous Emission Rate Monitoring Systems in Stationary Sources".

Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, the permittee of an affected source shall continuously operate all required continuous monitoring systems and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13 and Section R307-170.

#### II.B.2.b.2

##### **Recordkeeping:**

The permittee shall keep the records specified in R307-170-8 and any additional records required by provision I.S.1 of this permit. These records shall be maintained in accordance with Provision I.S.1.

#### II.B.2.b.3

##### **Reporting:**

The permittee shall comply with the reporting provisions in R307-170-7(5), R307-170-9 and Section I.S of this permit.

#### II.B.2.c

##### **Condition:**

Total emission from the operation of all engines at the plant shall not exceed the following limits:

- 1) NO<sub>x</sub>
  - a) 1.68 tons per calendar day
  - b) 248.0 tons per rolling 12-month period.

[Authority granted under R307-401-6(1) [BACT], [Utah SIP, Condition IX.H.I.b.E]; condition originated in DAQE-AN0819007-03]

II.B.2.c.1

**Monitoring:**

Internal combustion engine emissions shall be calculated from the operating data recorded by the CEM. Emissions shall be calculated for NO<sub>x</sub> for each individual engine in the following manner:

Daily Rate Calculation:

X\* = grams/kW-hr rate for each generator

K\* = total kW-hr generated by the generator each day

D = daily output of pollutant in lbs/day

$$D = (X * T)/453.6$$

The daily outputs are summed into a monthly output.

The monthly outputs are summed into an annual rolling 12-month total of pollutant in tons/year.

\* CEMS recorded data.

Emissions totals from the natural gas internal combustion dual fuel engines shall be kept in table format, listing month, operating hours, and emissions, for each individual engine. CEMS recordkeeping shall be performed in accordance with UAC, R307-170.

To determine compliance with a rolling 12-month total the owner/operator shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12 months. Records of emissions shall be kept for all periods when the plant is in operation.

II.B.2.c.2

**Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.2.c.3

**Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2.d

**Condition:**

The permittee may run the engine-generators on diesel when there is a natural gas curtailment. Springville shall notify the Executive Secretary within 24 hours of the natural gas being curtailed, the reason for the curtailment, and the length of the curtailment. Hours of operation during natural gas curtailment shall be limited to 72 hours per calendar year. [Authority granted under R307- 401- 6(1) (BACT); condition originated in DAQE-AN0819007-03]

II.B.2.d.1

**Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.2.d.2

**Recordkeeping:**

A log of all hours of engine operation on straight diesel fuel because of natural gas curtailment shall be maintained. Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.2.d.3

**Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2.e

**Condition:**

Total emission from the operation of all engines at the plant shall not exceed the following limits:

1) CO

- a) 1.15 tons per calendar day
- b) 200.0 tons per rolling 12-month period.

[Authority granted under R307-401-6(1) [BACT]; condition originated in DAQE-AN0819007-03]

II.B.2.e.1

**Monitoring:**

Internal combustion engine emissions shall be calculated from the operating data recorded by the CEM. Emissions shall be calculated for CO for each individual engine in the following manner:

Daily Rate Calculation:

$X^* = \text{grams/kW-hr rate for each generator}$

$K^* = \text{total kW-hr generated by the generator each day}$

$D = \text{daily output of pollutant in lbs/day}$

$$D = (X * T)/453.6$$

The daily outputs are summed into a monthly output.

The monthly outputs are summed into an annual rolling 12-month total of pollutant in tons/year.

\* CEMS recorded data.

Emissions totals from the natural gas internal combustion dual fuel engines shall be kept in table format, listing month, operating hours, and emissions, for each individual engine. CEMS recordkeeping shall be performed in accordance with UAC, R307-170.

To determine compliance with a rolling 12-month total the owner/operator shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12 months. Records of emissions shall be kept for all periods when the plant is in operation.



II.B.2.e.2

**Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.2.e.3

**Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2.f

**Condition:**

Emissions to the atmosphere from the indicated emission point shall not exceed the following rates and concentrations:

A. Emissions from the operation of each Enterprise engine at the plant:

		lb/hr	grams/kW-hr
1)	CO	24.50	2.00 with no controls
		2.50	0.20 with CO catalytic oxidizers

B. Emissions from the operation of each General Motor EMD engine at the plant:

		lb/hr	grams/kW-hr
1)	CO	60.00	10.6 with no controls
		6.0	1.10 with CO catalytic oxidizers.

[Authority granted under R307-401-6(1) (BACT); condition originated in DAQE-AN0819007-03]

II.B.2.f.1

**Monitoring:**

The permittee shall calibrate, operate, and maintain a continuous emissions monitoring system (CEM) on generator exhaust stacks, in accordance with R 307-170. While the affected emission units are operating, hourly CO emission rates expressed in lbs per hour and concentrations expressed in grams per kW-hr shall be determined in accordance with R307-170 using the appropriate conversion factors. The applicable performance specification in R307-170 shall be 40 CFR 60, Appendix B, Performance Specification 6 - "Specifications and Test Procedures for Continuous Emission Rate Monitoring Systems in Stationary Sources".

Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, the permittee of an affected source shall continuously operate all required continuous monitoring systems and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13 and Section R307-170.

II.B.2.f.2

**Recordkeeping:**

The permittee shall keep the records specified in R307-170-8 and any additional records required by provision I.S.1 of this permit. These records shall be maintained in accordance with Provision I.S.1.

II.B.2.f.3

**Reporting:**

The permittee shall comply with the reporting provisions in R307-170-7(5), R307-170-9 and Section I.S of this permit.

II.B.3

**Conditions on Boilers ( Boiler Group)**

II.B.3.a

**Condition:**

Hours of operation shall be no greater than 5000 hours per 12 month period. [Authority granted under R307- 401- 6(1) (BACT); condition originated in DAQE-AN0819007-03]

II.B.3.a.1

**Monitoring:**

Compliance with the limitation shall be determined on a rolling 12-month total. The permittee shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records of operation shall be kept for all periods when the plant is in operation. An hour meter shall determine hours of operation.

II.B.3.a.2

**Recordkeeping:**

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.3.a.3

**Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.C.

**Emissions Trading.**

(R307-415-6a(10))

Not applicable to this source.

II.D.

**Alternative Operating Scenarios.**

(R307-415-6a(9))

Not applicable to this source.

**Section III: PERMIT SHIELD**

A permit shield was not granted for any specific requirements.

**Section IV: ACID RAIN PROVISIONS.**

**This source is not subject to Title IV. This section is not applicable.**

## REVIEWER COMMENTS

---

This operating permit incorporates all applicable requirements contained in the following documents:

DAQE-AN0819007-03	dated	December 30, 2003
Utah SIP, Condition IX.H.1.b.E	dated	June 05, 2002

---

**1. Comment on an item originating in DAQE-AN0819007-03, Condition 16. C regarding Natural Gas Boiler (Unit Natural Gas Boiler)**

Fuel Usage: The 6.0 MMBTU/hr boiler is only equipped to burn natural gas therefore, the condition in the AO has not been carried forward except in the unit description to list it as NG only. [Comment last updated on 4/15/2004]

**2. Comment on an item originating in DAQE-AN0819007-03, Condition 16. A and B regarding permitted source (Source-wide)**

Fuel Usage: The "dual fuel" engine is defined as a gaseous fueled engine using the combustion of a tiny spray of liquid diesel fuel to ignite the gas-air mixture in place of a spark plug. The tiny bit of liquid diesel fuel is called "pilot fuel" because it acts as a "pilot light" to ignite the gaseous portion of the fuel charge.

The traditional "dual fuel" engine uses about 95% gaseous fuel ignited by about 5% liquid pilot fuel at a full load normal operation, in terms of heat input. The Enterprise engines use only 1% liquid pilot fuel and 99% gaseous fuel as the primary fuel. The amount of diesel fuel injected to an engine is fixed by rack setting while the natural gas is supplied based on the loading requirement. The proportion of fuel consumption during normal operation is a feature of an engine design, therefore, documentation showing the engine's pilot fuel usage recommended from the manufacturer shall be able to demonstrate compliance with the pilot fuel condition. It does not make sense for the owner/operator to use more diesel fuel since the purpose of the pilot fuel is to ignite the combustion and diesel is much more expensive than the natural gas.

Condition 16, A and B have therefore not been carried over to the Title V permit because the requirements are inherent in the design of the engines. [Comment last updated on 5/12/2004]

**3. Comment on an item originating in Utah SIP, Condition IX.H.1.b.E regarding Engines Group (Unit Engines)**

Stack Test every 3 years: The Utah SIP condition requires stack testing to be done at the source every three years. The AO (DAQE-AN0819007-03) for Springville City requires CEMs to be installed at the source. Utah DAQ has subsumed the stack test requirement from the SIP and has not brought it forward into the Title V because CEMs are required. [Comment last updated on 5/13/2004]

**4. Comment on an item originating in Utah SIP, Condition IX.H.1.b.E regarding Engines Group (Unit Engines)**

Emission limit calculations: The Utah SIP condition asks for emission limit calculations using the most recent stack test for each engine. The AO (DAQE-AN0819007-03) for Springville City requires the use of CEM data to calculate the emission limits. The Utah SIP condition is subsumed by the AO condition and has not been brought forward into the Title V permit. [Comment last updated on 5/13/2004]